

JET PROPULSION LABORATORY

INTEROFFICE MEMORANDUM  
311.3-32  
29 February 1988

TO: Distribution

FROM: ✓ Randy Cassingham *RC*

SUBJECT: SS User Operations Team Meeting Minutes  
for 29 February 1988

PRESENT: Rob Staehle, Randy Cassingham, Robin Shelton, Steve Pravdo, Tony Ibbott, Marc Lane, Kent Volkmer, Paul Henry, Leigh Rosenberg

*NOTE: There will be no meeting next week --  
Next Meeting: March 14, 1988 in 301-271 at 10:30.*

Rob Staehle

The PRD has been signed off.

Rob followed up on his two-week old memo on "Quick is Beautiful" payloads. Those who plan to respond to the memo should do so as soon as possible; even though the deadline was last week, the comments are still being accepted.

Anyone that is not already on NASAMail is encouraged to sign up. Contact George Anderson (4-5186) to get a mailbox assigned.

John Casani may be reviewing our Space Station Evolution tasks soon, and will hopefully support possible Mars and Lunar New Initiative-related work we might wish to do as expanded support to Code ST. Tak Hoshizaki (here) and Rob Koontz (Reston) are preparing a list of the extant working groups, panels, etc. across the Space Station Program, and a related list of groups we are already supporting from JPL and PR&A. These lists will be used to help decide where additional JPL representation is appropriate.

Code E has released \$50K to us to study the impact of planetary missions on the Station. This will be added to as much as a \$25K carryover from last year.

Rob has a copy of the OTF's final report. He will try to get additional copies of the executive summary (and the full report) for those who want it.

Paul Henry

Paul will draft the requirements for the GPS Science Experiment and deliver them to Rob.

The PDRD package has been received and review is largely completed. A few concerns have been brought up by JPL -- four or so change requests may be in order. Paul will draft these.



Tony Ibbott, Marc Lane and Kent Volkmer

...all went to the Evolution Working Group meeting (Andrey Sergeyevsky also attended, but he was not present at today's team meeting). The purpose of the meeting was to identify scars for the Station to accommodate future payloads and Station growth. The group was fairly confused as to what the Station would be able to accommodate in its post-Phase 1 configuration, but they did come up with a list of 20 or so concerns (such as limits on power, attach points, heat rejection, etc.) -- Kent Volkmer has a list of the concerns. Concerns raised by JPL are included on the list.

The EWG also talked a lot about the use of ELVs, though this may increase the requirement for an OMV, which is not currently planned to be based at the Station. Another concern was expressed regarding Station reboost: can the boosters compensate for changes in the Station's center of gravity? Tony believes there is a requirement concerning reboost of the Station with differing center-of-mass locations in the PDRD; he will confirm this. The EWG also discussed RTGs; the group may issue a change request regarding provisions for RTG and SP-100 class powerplant storage/handling as part of outbound planetary missions.

The EWG believes that a crew of eight will not be enough to take care of the Station and its payloads. A crew of 12-14 may be necessary.

Kent Volkmer

Langley will soon be issuing a funding priority list for Code ST work in FY89. He will participate in a telecon on this. Approximately \$12M will be allocated by ST; \$4M for evolution studies is likely, the rest going for Advanced Development. JPL currently has activities in both areas, and may wish to seek additional work in Planetary, Moon and Mars New Initiative areas. Kent will check that JPL has a rep assigned to the Evolution Management Council, which advises on funding priorities and allocations.

Steve Pravdo

Steve talked to Alan Bunner (Code EZ Branch Head for High-Energy Astrophysics) who said that the Code EZ non-Earth Viewing AO would probably be delayed past April 1. He read some of the AO's text to Steve; there are no facility instruments listed in the AO, but it does advertise a Payload Pointing System as being available.

Steve said he has the Prompt software working on a PC now and will be converting it from its POP orientation.

Upcoming Meetings

- + User Accommodations Panel: executive session; March 3-4 in Reston VA; Rob Staehle to attend (as a technical accommodation specialist, not as a JPL payload representative).
- + AIAA: Opportunity for potential Space Station users to present their requirements; March 7-9 in Crystal City VA; Paul Henry, H. Garrett and Rob Staehle to attend.
- + Payload Manifest Working Group: discussing the Payload Manifest; March 15-16 (TBD location); Paul Henry to attend.
- + User Operation Information Planning Group: discussing the User Payload Data Base; April (TBD day) in Reston VA; Leigh Rosenberg to attend.

Distribution*Space Station User Operations Team...*

Reinhard Beer	183-301
Randy Cassingham	301-285
Richard Grumm	511-206
Paul Henry	301-285
Tak Hoshizaki	183-501
Tony Ibbott	168-327
Eastwood Im	T-1206D
Marc Lane	158-224
Jim Lesh	161-135
Fuk Li	T-1206D
Carl Maag	157-504
Neville Marzwell	198-330
Don Maund	2158 La Jolla; Stockton CA 95204
Brian Muirhead	158-224
Gene Pawlik	168-327
Steve Pravdo	168-222
Leigh Rosenberg	301-285
Andrey Sergeyevsky	301-165
Robin Shelton	161-135
Rob Staehle	301-285
Kent Volkmer	301-285

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Mike Devirian	JPL Reston
Bob Easter	JPL Reston
Bill Gray	301-285
Chuck Ivie	506-310
Kristan Lattu	179-104
Harry Press	180-703
Al Pappano	180-703
Richard Pomphrey	233-208
Judith Robey	HQ/SU (JPL Detailee)



JET PROPULSION LABORATORY

INTEROFFICE MEMORANDUM

311.3-44

4 April 1988

TO: Distribution

FROM: ✓ Randy Cassingham *RC*

SUBJECT: SS User Operations Team Meeting Minutes  
for 4 April 1988

PRESENT: Rob Staehle, Randy Cassingham, Steve Pravdo, Tony Ibbott, Kent Volkmer, Paul Henry, Leigh Rosenberg, Chien-C Chen, Andrey Sergeevsky, Tom Glavich, Don Maund

<p><i>Next Meeting: April 11, 1988 in 301-271 at 10:30. John Bosley of ARC will be here to discuss Telescience</i></p>
--

Rob Staehle

Several people have expressed interest in the proposed visit by Space Shuttle astronauts to discuss Space Station operations. Rob will be setting up a visit by them sometime in the next three months or so.

Last week's minutes indicate that Steve Pravdo is reviewing the PDRD. Actually, it is Kent Volkmer that is joining Paul Henry and Leigh Rosenberg in that task.

Rob will be attending the 2nd Annual Lunar Base Conference for the rest of the week. The Space Station is a vital part of most lunar base scenarios.

Paul Henry

Has completed a look at spacecraft and trajectories for planetary missions. Three possible departure masses are being studied (9, 12 and 15 metric tonnes). Don Maund will begin looking at safety issues related to assembly, such as moving large masses and transferring propellants. He has recently received results of an initial interactive search -- he has about two disks full of references.

Kent Volkmer

Code ST will be providing \$8M in funding across NASA for advanced development of future robotic support for the Station. JPL has been asked to prepare and implement a process for evaluating proposals against this funding. It is not yet settled who in 311 will coordinate payload inputs; 347 leads the JPL effort. The first step is a needs evaluation; what will robotics be used for? Can it help reduce EVA requirements? Will be providing recommendations to ST by September. Detailed viewgraph info on this is attached.

Steve Pravdo

The astrometric telescope facility (ATF) is apparently considered "ready to go" by some OSSA personnel. CIT is not considered in this category. Rich Terille is organizing a science team, and definition of Space Station interactions will proceed in parallel with preparing a response to the AO.

Chien-C Chen

Their optical communications and tracking case study report will be issued tomorrow. Paul and Rob will get copies.

Leigh Rosenberg

JSC is trying to find out how many people will be using the User Payload Data Base. Rob believes 5-6 people at JPL will use it regularly, more if Platform payloads are included.

Tom Glavich

NALES (nadir and limb emission spectrometer -- also called the Fourier transfer spectrometer (another Space Station FTS)) will be studying tropospheric pollution and other aspects of the atmosphere. May be two instruments: one on the polar platform, another on the manned base (which will have to be shut down during EVAs, Shuttle visits, and for a good week after reboost -- NALES will be very sensitive to local contaminants). Will be actively cooled by refrigeration (increasing the problems with contaminants -- condensation). Will not need the payload pointing system -- will provide for its own pointing using internal mirrors.



Upcoming Meetings

- + User Operation Information Planning Group: discussing the User Payload Data Base; April (TBD) in Reston VA; Leigh Rosenberg to attend.
- + MDAC Neutral Buoyancy Facility Site Visit: walk-through of facilities there; April (TBD) in Huntington Beach; anyone may attend -- see Tak asap if you are not already on the list.

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Don Maund	2158 La Jolla; Stockton CA 95204
Brian Muirhead	158-224
Gene Pawlik	168-327
Steve Pravdo	168-222
Frank Randolph	301-466
Leigh Rosenberg	301-285
Andrey Sergeyevsky	301-165
Robin Shelton	161-135
Rob Staehle	301-285
Kent Volkmer	301-285
Carol Winn	264-325

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Mike Devirian	JPL Reston
Bob Easter	JPL Reston
Charles Elachi	180-703
Bill Gray	301-285
Chuck Ivie	506-310
Kristan Lattu	179-104
Al Pappano	180-703
Richard Pomphrey	233-208
Harry Press	180-703
Judith Robey	HQ/SU (JPL Detailee)
Paul Wiener	301-230


JET PROPULSION LABORATORY

INTEROFFICE MEMORANDUM

311.3-95

11 July 1988

To: Distribution

From: Randy Cassingham 

Subject: SS Utilization Team Meeting Minutes for 11 July 1988

Present: Rob Staehle, Randy Cassingham, Kent Volkmer, Lori Paul, MJ Mahoney, Holly Ziebarth, Marc Lane, Robert Mostert, Leigh Rosenberg, Tony Ibbott, Tom Glavich, Jeff Voss, Paul Henry, Kristan Lattu

Next Meeting: July 18 in 301-271 at 10:30
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Rob Staehle

Code EM has set up a Science Utilization Management Team, which will meet Aug. 4-5 for a review. Rob will attend; he will be asking some people for comments to take back to the meeting.

The VIMS instrument on the Mars Observer is about to be cancelled. We will pick up one of their people for contamination and SKP work.

The PR&A office has had FTS installed in their office. To reduce costs, please use their new FTS number when calling them. Instead of dialing 8-703 787-xxxx, dial 8-457-xxxx.

John Beckman and John Casani will be briefed on LDR and Planetary Mission Staging on July 26.

The Soviets have announced their intention to launch a manned Mars expedition by 2010. Any similar efforts by the U.S. will depend on the Space Station, so it is possible that we will get requests to provide quick study information if the U.S. wants to try a similar mission.

Paul Henry

Has been in communication with GSFC regarding the SKP. Has a tentative meeting set up on July 22 to debrief them on their SKP concepts. If you have any specific questions about the SKP that you want Paul to ask of Goddard, see Paul before that date.

The final draft of the Optical Communications report is out, and is being reviewed by Rob, Paul and Randy.

Andrey Sergeyevsky is looking at various departure maneuver options. His report will help the mission staging task. He has submitted an abstract for the AIAA Aerospace Sciences meeting in January.



The Code ST POP submittal review has been rescheduled to the first week in August.

Paul introduced Jeff Voss of Section 382. He will be doing work on contamination and the SKP now that the Mars Observer VIMS instrument is being cancelled.

Kristan Lattu

Now working on Distributed Ops (aka Telescience) Requirements. So far, no long-term telescience requirements have been identified (i.e., on the order of days at a time). Rather, only short-term (i.e., hours at a time) requirements have been seen so far. Some in the meeting expressed surprise at this; it is thought that since this type of continuous coverage was not available on the Shuttle, Space Station-era investigators may not yet realize that they can specify a requirement for continuous real-time links. TES, SSEX and LDR people confirmed that they did not have such long-duration requirements.

Tom Glavich - TES

Tak will be reviewing the second draft of Tom's report when he returns from vacation.

Tom has reviewed the user integration timeline from the Space Station Operations Task Force report; he says it is impossible to complete payloads in the short times allotted. Tom will write up his comments on this for Rob to pass on to Elachi as part of JPL's response to the OTF report.

Tony Ibbott and MJ Mahoney - LDR

The LDR team has come up with a good way to mount LDR on the Station during construction (pointing north in winter, south in summer) to avoid direct sunlight. Tony wants to run this on the CAD system to see how it looks and fits.

MJ presented the LDR assembly scenario to the LDR Design Team. The scenario will freeze on the 21st after the next Design Team meeting. LDR will be using the Div. 35 CAD system to show the assembly stages in the scenario.

Leigh Rosenberg

Attended the Utilization and Operations Integration Planning Group (UOIPG) meeting where the Requirements Definition Document for User Integration was reviewed. Many comments were made to make the document more consistent with user concerns. The UOIPG is chaired by Leo Perez, SSU Level II.

Robert Mostert

Has started work on the Utilization Requirements Refinement task. He and Leigh presented detailed work on early payload plans to Rob on July 8.



Marc Lane - Planetary Mission Staging

Marc has so far been unable to find a CAD model for the OMV, but is still working on it. He reported that early Space Station robots will be shaped and sized roughly like people so that the crew can be backups to robots. Therefore, early robots will likely have the same type of capabilities as the crew (e.g., lifting ability).

Marc is now on Telemail (not NASAMail) as MLane.

Holly Ziebarth - CAD

Holly is still working on updating the mass properties of the Mars Sample Return CAD model, and is updating the system files to be able to provide pictures of the Station model faster to satisfy graphic needs.

Lori Paul

Lori is assisting with administrative duties on Space Station tasks. She is currently tracking task deliverables to make sure things are kept on schedule.

Randy Cassingham

Randy is tracking SRMs and other financial data for the Space Station tasks.

The new PR&A Mission Analysis tasks have started up, Reston has expressed concern that approved SRMs and task plans have not been forthcoming. MA Task managers are asked to check the attached summary chart and supply the missing information to Reston and send copies to Randy. Rob Staehle advises that tasks failing to provide Division-approved SRMs to Reston in a timely fashion may have their accounts turned off.

Upcoming Meetings

- + Planetary Mission Departure task overview: at PR&A Reston, August 3 (tentative). Andrey Sergeyevsky to present and Rob Staehle to attend.
- + Code EM Science Utilization Management Team: working meeting, July 12-13. Bob White to attend.
- + Code EM Science Utilization Management Team: midterm review, August 4-5. Rob Staehle to attend.
- + Payload Manifest Working Group: August 8. Paul Henry to attend.
- + Evolution Working Group: August TBD. Kent Volkmer to attend.
- + FY'89 Code ST POP Submittal Review: August TBD. Paul Henry, Jeff H. Smith likely presenters; Kent Volkmer to attend.

Distribution

Send changes to this list to Randy Cassingham at 301-285

Reinhard Beer	183-301	Lori Paul	301-285
Liz Carpenter	PR&A Reston	Richard Pomphrey	233-208
Randy Cassingham	301-285	Steve Pravdo	168-222
Chien-C Chen	161-135	Harry Press	180-703
Laura Crary	301-285	Frank Randolph	301-466
Mike Devirian	PR&A Reston	Judith Robey	HQ/SU (JPL
Bob Easter	PR&A Reston		Detailee)
Charles Elachi	180-703	Leigh Rosenberg	301-285
Jay Estus	301-285	Andrey Sergeyevsky	301-165
Mike Freilich	300-323	Robin Shelton	161-135
Steve Gabriel	301-460	Jeff H. Smith	301-285
Hank Garrett	301-456	Jeff L. Smith	301-285
Tom Glavich	185-103	Rob Staehle	301-285
Jim Graf	233-306	Kent Volkmer	301-285
Bill Gray	301-285	Peter von Gronefeld	PR&A Reston
Richard Grumm	511-206	Jeff Voss	11-116
Chris Hartsough	301-350	Bob Vuolo	PR&A Reston
Paul Henry	301-285	Gary Walker	510-202
Dave Hixon	PR&A Reston	Allan Webb	PR&A Reston
Adrian Hooke	233-208	Robert H. White	264-648
Tak Hoshizaki	183-501	Paul Wiener	301-230
Tony Ibbott	168-327	Caroll Winn	264-325
Eastwood Im	300-235	Frank Wright	183-335
Chuck Ivie	506-310	Holly Ziebarth	171-300
William Kosmann	64-443		
Dick Kuberry	301-460		
Bob Laskin	198-326		
Marc Lane	158-224		
Kristan Lattu	179-104		
Jim Lesh	161-135		
Fuk Li	300-235		
Richard Lin	198-326		
Carl Maag	157-504		
Bill Mahoney	169-327		
Mike Mahoney	168-327		
Mike Mangano	158-224		
Benn Martin	264-325		
Neville Marzwell	198-330		
Don Maund			
(2158 La Jolla; Stockton CA 95204)			
Robert Mostert	301-285		
Brian Muirhead	158-224		
Rich O'Toole	301-285		
Al Pappano	180-402		



PR&A Mission Analysis Tasks  
Personnel Details

This revision printed: 13 July 1988

Account Number	Task Name	Task Manager	NASAMail Address	Mail Stop	Phone	Draft SRM	Div. Apprvd SRM	PR&A Apprvd SRM	Task Plan
726-21110	Att P/L Accom Strats	Paul Henry Dave Hixon	PHenry DHixon	301-285 Reston	x 4-1257 457-7220	x	X		
726-21111	Pointing System Options	Bob Laskin Dave Hixon	RALaskin DHixon	198-326 Reston	x 4-5086 457-7220	x			
726-21112	SKP Accommodations	Paul Henry Peter VonGronefeld	PHenry PVongronefeld	301-285 Reston	x 4-1257 457-7649	x	X		
726-21120	Util Reqts Defn	Robert Mostert Mike Devirian	n/a MDevirian	301-285 Reston	x 4-1267 457-7209	x			x
726-21210	Dist Ops Reqts Tradeoff	Adrian Hooke Allan Webb	AHooke AWebb	233-280 Reston	x 4-3063 457-7589				
726-21310	A&R Implementation	Jeff H. Smith Liz Carpenter	JHSmith EDutzi	301-285 Reston	x 4-1236 457-7216	x			x
726-21410	Data Handling Options	Chuck Ivie Bob Vuolo	? RVuolo	506-310 Reston	x 4-6045 457-7587	x			x
726-21420	Info Sys Architecture	Gary Walker Bob Vuolo	GWalker RVuolo	301-440 Reston	x 4-3491 457-7587	x			x
726-21501	Margin Policy Defn	William Kosmann Liz Carpenter	? EDutzi	264-443 Reston	x 4-3714 457-7216	x	x		x
726-21502	Orbital Debris	Steve Gabriel Liz Carpenter	? EDutzi	301-460 Reston	x 4-4952 457-7216	x	x		x
726-21510	POP Robotic Servicing	Jim Graf Dave Hixon	JGraf DHixon	233-306 Reston	x 4-4765 457-7220	x	x		Draft
726-21901	Program Documentation	Randy Cassingham Mike Devirian	RCassingham MDevirian	301-285 Reston	x 4-1273 457-7209	x	X		n/a
726-21902	Ad Hoc Study Support	Rob Staehle Mike Devirian	RStaehle MDevirian	301-285 Reston	x 4-1176 457-7209	x			n/a

311.3-74

20 June 1988

To: Distribution

✓ From: Randy Cassingham *RC*

Subject: SS User Ops Team Meeting Minutes for 20 June 1988

Present: Paul Henry, Randy Cassingham, Steve Pravdo, Holly Ziebarth, Leigh Rosenberg, Tony Ibbott, Robin Shelton, Eastwood Im

Next Meeting: June 27 in 301-271 at 10:30
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Paul Henry

The PR&A review meeting was held Wednesday. The tasks outlined for the rest of this year should keep us pretty busy.

The response to the Code ST POP call is due July 1. Draft proposals are due to Rob Staehle no later than Friday, June 24.

Robin Shelton - Optical Communications

The final report is almost completed. Paul will try to provide input this week on interaction between the Optical Communications experiment and other Space Station payloads.

Steve Pravdo - CIT

Space Station Program problems seem to be holding up the CIT. Fisk has stopped the proposal from being mailed. Perkin Elmer will be providing money for proposal writing.

Science magazine had a full page ad in this month's issue featuring the CIT. The ad was apparently bought by JPL for recruiting purposes.

The CIT science kick-off meeting will be held here Thursday and Friday in room 180-703B (which is a small room that won't accommodate many observers).



Steve Pravdo (continued)

The ATF is close to being moved to JPL. It is possible that it and the CIT will be incorporated into a single payload using the same telescope (with various sensor systems being swapped in and out as needed). There are many technical problems with this combined approach that would require in-depth study to assess the feasibility of this path.

Steve will start writing the case study soon.

Tony Ibbott - LDR

Looking into getting some computer simulation studies of LDR set up, especially since some design changes may be coming up. The CAD/CAM system will be used (an idea that came up during the demo of the CAD/CAM facility last week); Tony will meet with Holly and Paul later today to discuss how it might be done.

Leigh Rosenberg

The Utilization Studies Task for PR&A is on. Leigh will be talking to group members to identify problems brought out during the case studies.

The Utilization Operations Information Planning Group is meeting next week in Cocoa Beach. Leigh will be attending; Rob and Kristan Lattu will also be there.

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Gary Walker	510-202
Carol Winn	264-325



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Management Information...

Liz Carpenter	JPL Reston
Mike Devirian	JPL Reston
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Peter von Gronefeld	JPL Reston
Bob Vuolo	JPL Reston
Allan Webb	JPL Reston
Paul Wiener	301-230
Frank Wright	183-335

PR&A Mission Analysis Tasks  
Review Meeting, 15 June 1988

Attendance

<u>Name</u>	<u>Mail Stop</u>	<u>NASAMail Address</u>	<u>Phone</u>
Rob Staehle	301-285	RStaehle	FTS 792-1176
Randy Cassingham	301-285	RCassingham	FTS 792-1273
Laura Crary	301-285	LCrary	FTS 792-1284
Nino Lopez	233-208	SLopez	FTS 792-6110
Kent Volkmer	301-285	Volkmer	FTS 792-1240
Rich Miller	264-648	RMiller	FTS 792-8028
Bill Gray	301-285	BillGray	FTS 792-1090
Chet Borden	301-285		FTS 792-1238
Jay Estus	301-285		FTS 792-1245
Bob Laskin	198-326	RALaskin	FTS 792-5086
Jeff H. Smith	301-285	JHSmith	FTS 792-1236
Rich O'Toole	301-285	ROToole	FTS 792-1078
Warren Moore	179-206	W.Moore	FTS 792-4821
Lori Paul	301-285		FTS 792-1166
Robert Mostert	301-285		FTS 792-1267
Leigh Rosenberg	301-285	LRosenberg	FTS 792-1251
Bob Boundy	157-316		FTS 792-4299
Paul Weiner	301-230K	PWiener	FTS 792-5748
E.K. Davis	301-335		FTS 792-4343
Tak Hoshizaki	183-501		FTS 792-6962
A.C. Ibbott	168-327	AIbbott	FTS 792-4107
Robin Shelton	161-135	RShelton	FTS 792-7176
Paul Henry	301-285	PHenry	FTS 792-1257
Richard Masline	301-490		FTS 792-4889
Gary Walker	301-445	GWalker	FTS 792-3491
Mike Devirian	Reston	MDevirian	703 487-7209
Frank Donivan	Reston	FDonivan	703 487-7594
Allan Webb	Reston	AWebb	703 787-7589
David Hixon	Reston	DHixon	703 487-7220
Bob Vuolo	Reston	RVuolo	703 787-7587




JET PROPULSION LABORATORY

INTEROFFICE MEMORANDUM

311.3-98

18 July 1988

To: Distribution

From: Randy Cassingham 

Subject: SS Utilization Team Meeting Minutes for 18 July 1988

Present: Rob Staehle, Randy Cassingham, Kent Volkmer, Lori Paul, Marc Lane, Robert Mostert, Leigh Rosenberg, Tony Ibbott, Jeff Voss, Paul Henry, Steve Pravdo, Don Maund, Clayton LaBaw, Bob Laskin, Edward Wong, Henry Garrett

Next Meeting: July 25 in 301-271 at 10:30
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Corrections and Clarifications to Previous Minutes

Mike Devirian had some comments regarding our discussion of telescience requirements (as reported in last week's minutes):

Noticed discussion under heading "Kristan Lattu" regarding requirement gathering for telescience. I'm concerned because I see more of what has been a common biased interpretation of Telescience, i.e., that it equates to real-time joy-sticking. The continued preponderance of this view has led to some very serious political problems for the concept of telescience at HQ (hence my use of Distributed Ops vs. Telescience in Webb's task). Here's a mini-lecture on Telescience. Much has been written by the SAIS troops, so that can be referenced for more info.

To paraphrase my favorite Roman, All Telescience is divided into three parts. The most commonly thought of is Tele-control, or Tele-operations, which includes the joy-sticking and other "on-line" kinds of operations. I include in this first category "Tele-verification", which is the remote participation in instrument verification and test and integration by the investigator's team. (Some people put this in the Tele-planning category, but that faction has just about died out, so I think we can ignore it.) A second very important part of Telescience is Tele-planning or Tele-design. This aspect involves all the remote access to design (instrument and sequence), planning, scheduling databases and communication with other people involved in these activities. The third aspect of Telescience is Tele-analysis, the sharing, processing, discussion, analysis, etc. of scientific data and results.

"Telescience" will be occurring when a harmonious combination of all of these activities, for a number of experiments, are all happening simultaneously.

Please endeavor to keep a balance among these activities when discussing Telescience.

Rob Staehle

Two detailee positions are now open at Headquarters. One is requested via Kirk Dawson's JPL office for a position in the Level I Space Station Information Systems office; a fairly senior person is required. The other is in Bob Benson's Code EM office (working for Phil Cressey). Some candidates are under consideration for the latter. Anyone interested in either position should contact their division, Rob Staehle or Bob White.

The OSSA Science Utilization Management Team has been formed. Rob and Bob White are representing JPL. The next meeting is July 26-27 at JSC.

Anyone wishing to be on the biweekly Space Station News eight-page newsletter routing list should contact Randy Cassingham to be put on the list. It covers political, contractor, personnel and technical stories related to the Space Station.

The SS Attached Payload AO has been released and will be mailed by July 22. Proposals are due in mid-November. This word is unofficial and could change.

Paul Henry

Currently busy structuring the Payload Accommodation, SKP and Pointing studies for a briefing to Mike Devirian of PR&A.

Working with Don Maund on completing the Mission Staging Safety paper. Will be out in two weeks. Most of the issues identified are more "generic" and not necessarily related only to Mission Staging. Paul has found a good list of contacts at JSC, GSFC and LeRC to help with the assessment of on-orbit cryogenic transfers.

The Optical Communications Case Study report is nearly complete; will probably be going to the printer on Friday. Randy, Paul and Rob have provided comments.

Leading the FPO task review effort on July 26.

Tony Ibbott

Will be talking to Paul regarding attending an FY88 FPO review with Beckman on July 26.

Bob Laskin

Linda Roebek will be the JPL liaison with GSFC regarding the SKP.

Edward Wong will be replacing Richard Lin on the Pointing Studies work as Lin has been promoted to Precision Segmented Reflector deputy manager.



Bob will designate a representative to the SS Attached Payload and Platforms Accommodations Working Group.

Meeting with Mike Sander on July 20 to discuss the distribution list of the Pointing System paper.

Jeff Voss

Has started work on instrument contamination studies. Patty Hansen (of Carl Maag's office) is providing help. Will also be working on a broader SKP assessment task.

Don Maund

Is working with Paul Henry on Mission Staging safety issues. Will be finalizing the report in two weeks.

Steve Pravdo

Has started Part Two of the CIT report.

Will be attending the A.T.F. technical working session, coordinated by Frank Wright, on July 19-20.

Attended the Planetary System Science Working Group meeting last week. The OSSA Space Station payload selection is scheduled for April '89. Earth-viewing and other attached payloads are to be selected at the same time.

Kent Volkmer

Will be attending the Space '88 conference to present the FTS paper (by Kent, J.H. Smith and others) Aug. 29-31. An agenda for the conference is attached; anyone interested in seeing the list of papers should contact Kent.

Jeff H. Smith, Dick Levin and Kent will present the A&R Implementation Plan for Level II at Reston on July 21 before its final release. This PR&A task will conclude in September.

Leigh Rosenberg

Talked with John Mankins regarding Mankins' Submillimeter Telescope cost comparison report. Mankins has ok'd having someone else assigned to complete the report, which is now quite overdue to Remer Prince (Code SU). Leigh will complete the report.

Robert Mostert

Has finished the first draft of his Payload Lifecycle flowchart; will distribute it for comments. Clayton LaBaw will provide consulting support from his experience with numerous flight projects at JPL.

Marc Lane - Planetary Mission Staging

Has obtained the mass properties of the OMV from TRW. Marc also continues on Jury Duty...

Lori Paul

Is compiling a list of task deliverables to make sure things are kept on schedule. She will be contacting people to make sure her list is complete.

Randy Cassingham

Most of the Division-approved SRMs for the PR&A Mission Analysis tasks have been delivered. MA Task managers are asked to check the attached summary chart and supply the missing information to Reston and send copies to Rob Staehle.

Henry Garrett

Will be giving a briefing on SS Environmental Interactions to Tony Ibbott and others (date/time TBD). Will set up other briefings on request (call him ASAP if you wish to get in on the briefing this week).

Upcoming Meetings

- + July 19-20. ATF Technical Working Session; Coordinated by Frank Wright; Steve Pravdo to attend.
- + July 21. A&R Implementation Plan review; in Reston; Kent Volkmer, Jeff H. Smith and Dick Levin to attend.
- + July 26. FY88 FPO near-Earth orbit Advanced Studies task review for John Beckman (and possibly John Cassani); Paul Henry and Kent Volkmer to present in Rob Staehle's absence (at JSC). Andrey Sergeyevsky, M.J. Mahoney or Tony Ibbott to attend.
- + July 26-27. Code EM Science Utilization Management Team working meeting: at JSC; Rob Staehle to attend.
- + August 3. Planetary Mission Departure task overview: at PR&A Reston; Andrey Sergeyevsky and Paul Henry to present and Rob Staehle likely to attend.
- + August 4-5. Code EM Science Utilization Management Team: midterm review; Rob Staehle to attend.
- + August 17. Payload Manifest Working Group: at PR&A Reston; Paul Henry to attend.
- + Aug. 29-31. Albuquerque; Space '88 conference; Kent Volkmer and Jeff H. Smith to present their FTS paper.
- + August TBD. Evolution Working Group: Kent Volkmer to attend.
- + August TBD. FY'89 Code ST POP Submittal Review: Paul Henry, Jeff H. Smith likely presenters; Kent Volkmer to attend.



Deliverables (incomplete list)

- + Division-approved SRMs and task plans for the PR&A Mission Analysis tasks that have not already been delivered. Were due in Reston June 17.
- + Robin Shelton/Paul Henry; Optical Communications scenario report; due to printer on July 22.
- + Sam Brunstein; TRAMAR Draft Case Study report; due to Tak Hoshizaki on July 25
- + Leigh Rosenberg; John Mankins' Submillimeter Telescope cost comparison report; to be completed by August 1.
- + Don Maund/Paul Henry; Planetary Mission Staging Safety issues; due for release August 1.
- + Kent Volkmer; A&R Implementation Plan; (date?)

Information from Code L's "Daily News in Brief" (NASA-related news summary)

WASHINGTON POST, JULY 19

"SPACE STATION CHRISTENED 'FREEDOM' BY REAGAN"

"NASA's budget-crippled space station, facing an uncertain future in Congress, was christened 'Freedom' by President Reagan today to symbolize the values shared by America and its allies, an official said."

The story says White House spokesman Marlin Fitzwater said the name Freedom was recommended by NASA officials and representatives of Canada, Japan and the European Space Agency, which are participating in the project.

The story says NASA hopes to begin construction of Freedom in the mid-1990's.

... so there will be two space stations: "Peace" and "Freedom"...

# Space 88: Engineering, Construction & Operations in Space an A S C E Specialty Conference

As part of ASCE's Strategic Plan the purpose of this conference is to help Civil Engineers achieve early involvement in the development of space. The conference, the first in a series, will help the engineer, constructor and operator of facilities develop capabilities to design,

construct, operate, maintain and repair facilities in space. The scope of the conference includes: ground base facilities, orbiting facilities, lunar bases and the facilities needed to develop extraterrestrial resources and support missions to Mars.

Time	Monday August 29, 1988	Tuesday August 30, 1988	Wednesday August 31, 1988
8:00	~William "Bud" Carrou~ President-Elect of ASCE opens Conference Keynote: U.S. Directions in Space John Aaron, NASA	Keynote: (U.S. Army Corps of Engineers) Maj. Gen. George K. "Ken" Withers Keynote: (Hubble Space Telescope) Dr. Riccardo Giacconi	Keynote: AF Engr. & Services Role in Space Maj. Gen. George E. Ellis Keynote: U.S. Space Program - past & future Dr. Hans Mark
9:00	BREAK	BREAK	BREAK
10:00	Panel Discussions: Approaching the Construction Problems in Space • George Levin • Dr. James van Hoften • Dr. Michael Duke • Dr. Richard Tucker • Dr. Richard Wright • Dr. Mary Cleave Panel Chairman: Dr. Gerald May	ET Track Lunar Surface Construction & Operations 6	Spec. Track Space Power 3 ET Track Lunar Oxygen 3
11:00		Orbital Track Construction & Assembly Methods for Orbiting Structures 6	ET Track Lunar Surface Habitation & Mining 6 Orbital Track Maintenance & Operations Associated with a Space Station 6
12:00	A' LA CARTE LUNCHEON Dr. Harrison Schmitt • Constraints on Lunar Base Construction	A' LA CARTE LUNCHEON Dr. Mary Cleave • Narrate film of STS 61-B flight • Present student certificates	A' LA CARTE LUNCHEON Barney Roberts • On the Final Frontier
1:00			
2:00	ET Track Surface Properties 4	ET Track Cement and Concrete for Construction 4	ET Track Martian Basing 4
3:00	Orbital Track Mechanics of Space Structures & Mats 6	Specialty Track Life Support Systems 3	Orbital Track Role of Space Station Tech. in Advanced Space Oper. 4
4:00	ET Track Processing Lunar Soils 3	Specialty Track Human Factors 3	Specialty Track Education 4
	Orbital Track Space Envi- ronmental Effects 4	Orbital Track Robotic Construction & Planning 6	Specialty Track Astronomy & Requirements 4
	ET Track Lunar Base Design 3		Specialty Track Management & Planning of Systems for Space Facilities 4

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US Army  
Corps of Engineers

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AIAA, Albuquerque Section  
ASME, New Mexico Section  
Los Alamos National Laboratory  
SAME, Albuquerque Post  
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Power Studies  
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ADDITIONAL EVENTS: Sun. 8/28 Registration Mixer (3:00-11:00 p.m.); Mon. 8/29 Ice-Breaker (5:00-7:00 p.m.) and Poolside BBQ (7:00-11:00 p.m.); Tues. 8/30 Poster Session w/Wine & Cheese Reception (5:00-8:00 p.m.)  
HOTEL RESERVATIONS: Contact the Albuquerque Hilton Hotel (505) 884-2500 by 8/5/88 — \$58.00 plus tax (single/double)

## ASCE "SPACE 88" REGISTRATION INFO/FORM:

Name \_\_\_\_\_  
Title \_\_\_\_\_  
Firm \_\_\_\_\_  
Address \_\_\_\_\_  
City, State, Zip \_\_\_\_\_  
Of which Sponsoring Society or Affiliated Group are you a Member? \_\_\_\_\_

## Circle Fee

### Member of Sponsoring or Affiliated Group:

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Before August 1 ..... \$250  
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International Participation ..... \$225

## Circle Day

Daily — Member (Mon. Tues. Wed.) ..... \$110  
Daily — Non-Member (Mon. Tues. Wed.) ..... \$120  
Students (Tech. Sessions Only) ..... \$ 5  
Tour of Santa Fe ..... \$ 45  
Spouse Registration ..... \$ 40

Extra Barbecue Tickets ..... @ \$25 = \_\_\_\_\_

Extra Wine & Cheese Tickets ..... @ \$15 = \_\_\_\_\_

Total Amount Enclosed \$ \_\_\_\_\_

Make checks payable to: Space 88 Conference, ASCE. Credit card payments should include card type (AMEX, DINERS, VISA, MASTERCARD), name on card, card #, and expiration date. To qualify for advanced registration discount, postmark form by August 1. Mail to: ASCE, 345 East 47th St., New York, NY 10017-2398. Phone (212) 705-7139. FAX (212) 980-4681.



PR&A Mission Analysis Tasks  
Personnel Details

TASKS.M-A  
This revision printed: 19 July 1988

Account Number	Task Name	Task Manager	NASAMail Address	Mail Stop	Phone	Draft SRM	Div. Apprvd SRM	PR&A Apprvd SRM	Task Plan
726-21110	Att P/L Accom Strats	Paul Henry Dave Hixon	PHenry DHixon	301-285 Reston	x 4-1257 457-7220	x	x		
726-21111	Pointing System Options	Bob Laskin Dave Hixon	RALaskin DHixon	198-326 Reston	x 4-5086 457-7220	x	x		
726-21112	SKP Accommodations	Paul Henry Peter VonGronefeld	PHenry PVongronefeld	301-285 Reston	x 4-1257 457-7649	x	x		x
726-21120	Util Reqts Defn	Robert Mostert Mike Devirian	n/a MDevirian	301-285 Reston	x 4-1267 457-7209	x			x
726-21210	Dist Ops Reqts Tradeoff	TBD Allan Webb	AWebb	Reston	457-7589				
726-21310	A&R Implementation	Jeff H. Smith Liz Carpenter	JHSmith EDutzi	301-285 Reston	x 4-1236 457-7216	x	x		x
726-21410	Data Handling Options	Chuck Ivie Bob Vuolo	? RVuolo	506-310 Reston	x 4-6045 457-7587	x		x	x
726-21420	Info Sys Architecture	Gary Walker Bob Vuolo	GWalker RVuolo	301-445 Reston	x 4-3491 457-7587	x		x	x
726-21501	Margin Policy Defn	William Kosmann Liz Carpenter	? EDutzi	264-443 Reston	x 4-3714 457-7216	x	x	x	x
726-21502	Orbital Debris	Steve Gabriel Liz Carpenter	? EDutzi	301-460 Reston	x 4-4952 457-7216	x	x		x
726-21510	POP Robotic Servicing	Jim Graf Dave Hixon	JGraf DHixon	233-306 Reston	x 4-4765 457-7220	x	x	x	Draft
726-21901	Program Documentation	Randy Cassingham Mike Devirian	RCassingham MDevirian	301-285 Reston	x 4-1273 457-7209	x	x		n/a
726-21902	Ad Hoc Study Support	Rob Staehle Mike Devirian	RStaehle MDevirian	301-285 Reston	x 4-1176 457-7209	x	x		n/a

Distribution

Send changes to this list to Randy Cassingham at 301-285

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Laura Crary	301-285	Frank Randolph	301-466
Mike Devirian	PR&A Reston	Judith Robey	HQ/SU (JPL
Bob Easter	PR&A Reston		Detailee)
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Cate Heneghan	301-285	Gary Walker	301-445
Paul Henry	301-285	Allan Webb	PR&A Reston
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Mike Mahoney	168-327		
Mike Mangano	158-224		
Benn Martin	264-325		
Neville Marzwell	198-330		
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(2158 La Jolla; Stockton CA 95204)			
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Rich O'Toole	301-285		
Al Pappano	180-402		